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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,569	08/14/2001	David Cooke	F3271(C)	9161

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UNILEVER
PATENT DEPARTMENT
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EXAMINER	
HENDRICKS, KEITH D	

ART UNIT	PAPER NUMBER
1761	

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

CIC

Office Action Summary	Application No.	Applicant(s)	
	09/929,569	COOKE ET AL.	
	Examiner	Art Unit	
	Keith Hendricks	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4 and 7-15* is/are rejected.

7)☒ Claim(s) *5-6* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Status of Claims

Claims 1-15 are currently pending.

Claims 5-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 12-14 remain rejected under 35 U.S.C. 102(b) as being anticipated by Schol et al. (US PAT 5,308,628).

Schol et al. (US PAT 5,308,628) disclose a method of preparing frozen dairy desserts, by fermenting a lactic-acid bacterial culture in a milk composition until the mixture reaches a pH in the range of between 4.3 and 5.5. The pH is not regulated during the fermentation. One of the utilized lactic acid bacteria is the anaerobic microorganism, *Lactobacillus acidophilus*, which is a known dextran-producing microorganism (see the table at col. 2 of US PAT 6,399,119, as evidence of this production). The fermented mixture was then pasteurized and used as a base for a frozen dessert, including the production of ice cream (see abstract and examples).

Applicant's arguments filed November 14, 2003, have been fully considered but they are not persuasive. At page 4 of the response, applicants state that "claim 1 has been amended to specify that the pH of the mixture remains above pH 5.5". While this argument pertains to the method steps involved, and to the product formed immediately upon stoppage of fermentation, it does not necessarily reflect the final food product to which the fermented mixture is added or formed. For example, when "the fermented mixture is diluted with a milk-based non-fermented mixture", as stated in instant claim 1, the final product of both the prior art and that of applicant's claims would be expected to have a pH different from that of the initial fermented mixture, since non-fermented milk has a pH higher than fermented milk.

Thus, the product claims remain anticipated by the reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

i) Claims 1,3 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schol et al. The reference is taken as cited above.

While Schol et al. does not teach stopping the fermentation of the mixture while it "remains above pH 5.5", as instantly claimed, the reference does teach the specific endpoint of pH 5.5. However, there does not appear to be any patentable distinction between a pH of 5.5, and that which "remains above pH 5.5." It is acknowledged that these are different amounts. However, the phrase "above pH 5.5" encompasses a pH only slightly above, for example, 5.501. Applicant has not demonstrated any patentable distinction, advantage or functional difference between the prior art method/product and that instantly claimed. In fact, applicant's own specification, at the top of page 6, states that the pH of the mixture should be "at or above 5.5", thus supporting the position that there is no substantial difference between the two amounts, and that both would function equally well within the claimed invention. Absent any clear and convincing evidence and/or arguments to the contrary, it would have been obvious to one of ordinary skill in the art to have utilized the claimed method while stopping the fermentation, or allowing the fermentation to stop naturally, at a point slightly above pH 5.5.

Further, attention is invited to *In re Levin*, 84 USPQ 232 and the cases cited therein, which are considered in point in fact situation of the instant case. At page 234, the Court stated as follows:

> This court has taken the position that new recipes or formulas for making food which involve the addition or elimination of common ingredients, or *for treating them in ways which differ from the former practice, do not amount to invention,* merely because it is not disclosed that, in the constantly developing art of preparing food, no one else ever did the particular thing upon which the applicant asserts his right to a patent. In all such cases, there is nothing patentable unless the applicant by a proper showing further establishes a coaction or cooperative relationship between the selected ingredients which produces a new, unexpected and useful function. In re Benjamin D. White, 17 C.C.P.A. (Patents) 956, 39 F.2d 974, 5 USPQ 267; In re Mason et al., 33 C.C.P.A. (Patents) 1144, 156 F.2d 189, 70 USPQ 221.

Regarding claims 8-9, as stated previously, the use of microorganisms from commercial sources includes the availability of these microbes in various forms, including freeze-dried and frozen "beadlets." The form in which the microorganisms are available, commercially or otherwise, is unrelated to the utilization of the microorganisms within the instantly-claimed and disclosed, absent any clear and convincing evidence and/or arguments to the contrary, demonstrating a distinct difference or advantage. This would be tantamount to a claim to "a method of using a toy comprising building a structure with blocks", and a dependent claim reciting "wherein the blocks arrive in a box." Thus, the use of the microorganisms in the form in which they are commercially and/or publicly available, would have been obvious to one of ordinary skill in the art. Furthermore, the culturing of the microorganisms within a given temperature range in which the microbes grow and provide fermentation, was well known in the art. Lactic acid bacteria were well-known to thrive in a culture temperature range of, generally, 20-35° C. See, for example, column 2 of US PAT 4,444,793, of record, or common lactic fermentation textbooks known in the art. Thus, the selection of a temperature range for fermentation as taught be Schol et al. would not have involved an inventive step, and it would have been obvious to one of ordinary skill in the art to have fermented the microbes in a temperature well within the instantly-claimed range. [1]

ii) Claims 1-4, 7-12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aebischer et al. (US PAT 6,004,800, of record), in view of Tamime (Yoghurt Science and Technology).

Aebischer et al. disclose a process for producing dextran by culturing a strain of *Leuconostoc mesenteroides* ssp. *cremoris* in MSK medium (skimmed cow's milk) supplemented with at least 2% of sucrose. "The medium can be allowed to ferment at 25-35°C for 10-20 h. with the pH being maintained at 6- 7.3, for example" (col. 3, ln. 40-42). The reference does not provide the means by which the pH is maintained.

Tamime et al. discloses a known method of continuous yoghurt production, where "slime" (polysaccharide) producing strains of lactic acid bacteria are cultured in milk, where the pH of the milk is reduced to 5.7 by the natural fermentation activity of the bacteria. This fermented milk culture is called

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[1] *Note that applicant's statement at page 5 of the response, "as the Office did not reject claim 1 to be obvious in light of Schol et al., then claims 8 and 9 are not obvious either", is technically incorrect and a misinterpretation of the statutes. This statement would indeed apply if the rejection were under 35 U.S.C. 102(b) for claims 8-9, but under 35 U.S.C. 103(a) for claim 1 (which would be improper); however, as dependent claims often add limitations which are not directly taught by the reference as applied to an independent claim (i.e. not a 102 rejection), such claims remain available for rejection under 35 U.S.C. 103(a). Regardless, all of claims 1 and 8-9 are now rejected under 35 U.S.C. 103(a).*

"prefermented", as it is the first step in the disclosed fermentation process; however, the mixture has indeed been fermented by the bacteria. The reference states that non-fermented milk is added to the fermented mixture "at a rate that maintains the pH at 5.7", which is the chosen pH for that particular process.

Note that the Aebischer reference states that "when fermentation has ended, the pH of the resulting culture can be lowered to 5 – 5.5 by the addition of lactic acid." This addition of acid to modify the pH does not occur during fermentation, and thus would not be relevant to the instant claims. The referenced statement regarding fermentation provides the teaching that "the medium can be allowed to ferment… with the pH being maintained at 6- 7.3." This does not suggest that acids or bases are added to the culture during fermentation. It simply states that the pH is "maintained." Thus, since the primary reference does not specify a means by which this is maintained, one of ordinary skill in the art would have been motivated to look to the prior art, for example a common textbook such as that of Tamime et al., for guidance as to how this is performed. Tamime et al. clearly demonstrate that in a known process of lactic acid fermentation of milk cultures, fresh non-fermented milk is added to the fermentation culture to "maintain the pH" at a given level. Thus, it would have been obvious to one of ordinary skill in the art to have cultured the *Leuconostoc mesenteroides* ssp. *cremoris* in MSK medium (skimmed cow's milk), maintaining the culture at a pH in the range of 6-7.3, as the reference specifically states, while utilizing the known procedure for carrying this out, as shown by Tamime et al. Note that this process of adding non-fermented milk to the fermented culture is also found in instant claim 11. Thus, instant claims 1-4, 7-12 and 15 are rejected as obvious over the combination of references cited herein.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Keith Hendricks whose telephone number is (571) 272-1401. The examiner can normally be reached on M-F (8:30am-6pm); First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-0987.

KEITH HENDRICKS
PRIMARY EXAMINER